

### **REMARKS/ARGUMENTS**

Claims 1-8 stand rejected in the outstanding Official Action. Claim 1 has been amended and newly written claims 10-21 offered for consideration. Therefore, claims 1-8 and 10-21 are the only claims remaining in this application.

Claims 1-8 stand rejected under 35 USC §103 as unpatentable over Byron (U.S. Patent 4,633,428) in view of Barenburg (U.S. Publication 2003/0026515 A1). The Examiner contends that all features of Applicants' independent claim 1 (and by implication newly written independent claims 10 and 14) are disclosed in at least one of the Byron and Barenburg references. This is simply incorrect. The Examiner fails to indicate how or where there are "at least two independent processing channels" in Byron. While there are multiple detectors in Byron's Figure 4a, there is no disclosure of at least two independent processing channels.

Applicants have also amended independent claim 1 to limit the claims to causing varying delays in the transmission of electromagnetic radiation passing therethrough. There is certainly no indication that the optical fibers 24, 25 and 26 cause "varying delays" in the transmission of electromagnetic radiation. In fact, since in Byron these fibers conduct electromagnetic radiation **one at a time** (see column 4, lines 11-16), there would be no need to delay radiation through one fiber with respect to radiation through another because the detector can receive the radiation sequentially, i.e., one at a time.

There is no disclosure of a plurality of "couplers interconnecting the other ends" of the optical fibers in parallel. Clearly, Byron discloses only a single coupler 28 for combining the three fibers 24-26 into a single channel 27 which then passes to the collimating lens 30.

The Examiner's admission that Byron "does not disclose the fibers receiving and transmitting electromagnetic radiation" is very much appreciated (Official Action, page 2). The Examiner argues that Barenburg's teaching of waveguides receiving and transmitting electromagnetic radiation and that it would be somehow obvious to combine Barenburg with Byron. Where is there any disclosure of optical fibers for causing "varying delays in the transmission of electromagnetic radiation passing therethrough" in the Barenburg reference? Since the Examiner admits these fibers are missing from the Byron reference, the burden is on the Examiner to establish where they are disclosed in the Barenburg reference. She has not met her burden of proving where Barenburg teaches the "varying delay" fibers. As a result, even the combination of Byron and Barenburg fails to disclose the claimed invention.

Moreover, the Examiner provides no "reason" or "motivation" for combining the two dissimilar references. Byron is an optical matrix-vector multiplier, whereas Barenburg is a monolithic tunable wavelength multiplexer. Multipliers and multiplexers are two very different structures and therefore, other than the Examiner's conclusory statement that it would be obvious to use optical fibers to "transmit large quantities of information," there is no motivation to combine these two references.

In combining the two references, the Examiner is merely picking and choosing portions of Byron and portions of Barenburg and then utilizing Applicants' own specification in order to teach the claimed combination. This is not permitted under multiple Federal Circuit decisions, not the least of which is *In re Rouffet*, 47 USPQ2d 1453, 1457-8 (Fed. Cir. 1998), stating

to prevent the use of hindsight based on the invention to defeat patentability of the invention, this court **requires** the examiner to show a motivation to combine the references that create the case of obviousness. In other words, **the Examiner must show reasons**

that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. (Emphasis added).

The burden is on the Examiner to establish how or where the individual claimed elements are disclosed in at least one of the references and that there is some “reason” or “motivation” to combine these references in the manner claimed. The Examiner has not shown where all claimed elements are shown in at least one of the cited references, nor has she provided any reason or motivation for picking and choosing elements from the various references and then combining them in the manner of Applicants’ claims.

Should the Examiner disagree with the above analysis, she is respectfully requested to identify (1) where each claimed element and each claimed interrelationship is shown in the cited references and (2) where there is any “reason” or “motivation” for combining those elements from different references in the manner of Applicants’ independent claims 1, 10 and 14. Absent any such teaching, the rejection of claim 1 and claims 2-8 dependent thereon is respectfully traversed.

Applicants add newly written independent claims 10 and 14 and claims 11-13 and 15-21 , dependent respectively, to further and more broadly claim the subject matter of Applicants’ invention. Consideration of independent claims 10 and 14 and claims dependent thereon is respectfully requested.

Having responded to all objections and rejections set forth in the outstanding Official Action, it is submitted that claims 1-8 and 10-21 are in condition for allowance and notice to that effect is respectfully solicited. In the event the Examiner is of the opinion that a brief telephone

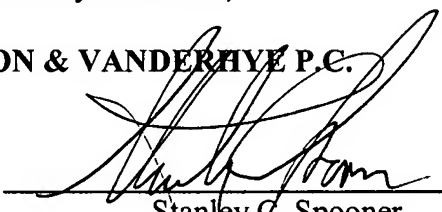
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or personal interview will facilitate allowance of one or more of the above claims, she is respectfully requested to contact Applicants' undersigned representative.

Respectfully submitted,

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